

Free

Online

No GIS skills
required

Consistent
data

Research-
based

New to EnviroAtlas?

Ecosystem services are critically important to human health, but often overlooked. [EnviroAtlas works to bridge this gap \(YouTube\)](#) [Exit](#).

1 2 3 4



EnviroAtlas provides interactive tools and resources for exploring the benefits people receive from nature or "ecosystem goods and services". Ecosystem goods and services are critically important to human health and well-being, but they are often overlooked due to lack of information. Using EnviroAtlas, many types of users can access, view, and analyze diverse information to better understand the potential impacts of various decisions.

Get Started with EnviroAtlas



New to EnviroAtlas? Start with these resources.

- **Ecosystem Services in EnviroAtlas**

These benefits underpin almost every aspect of human well-being, including our food and water, security, health, and economy.

- **How to Use EnviroAtlas**

Demo videos and training documents, including examples of how these tools can be applied in a variety of ways.

- **EnviroAtlas Data**

Overview of EnviroAtlas data organization, spatial extents, & how to access.

Access Interactive Apps



The Interactive Map and Eco-Health Relationship Browser are the flagship EnviroAtlas applications.

- **EnviroAtlas Interactive Map**

A multi-extent Interactive Map with broad scale data for the lower 48 states and fine scale data for selected communities.

- **EnviroAtlas Eco-Health Relationship Browser**

An easy-to-use relational browser showing the linkages between ecosystems, the services they provide, and human health.

More GIS Resources



Already familiar with EnviroAtlas and GIS analysis? Explore these resources.

- **EnviroAtlas Tools**

Access several downloadable GIS toolboxes and ArcMap extensions that work with user-supplied data.

- **EnviroAtlas Data Download**

EnviroAtlas National and Community data are made freely available for download.

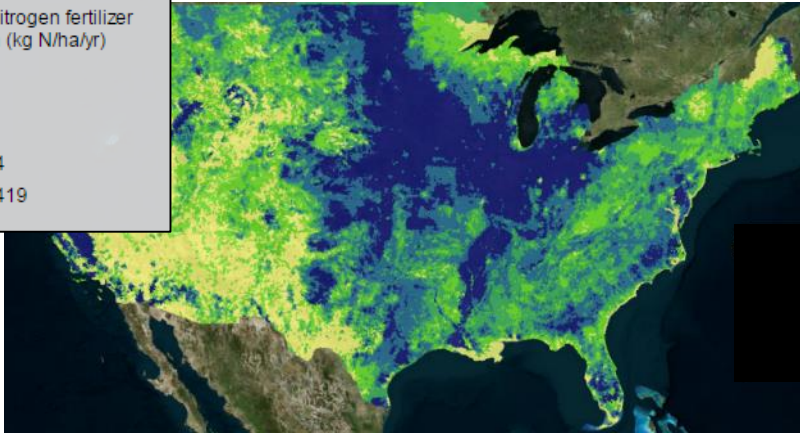
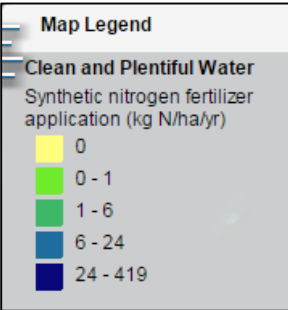
- **Resources for EnviroAtlas Collaborators**

Information and document templates to guide the development of data, metadata, widgets, tools and fact sheets.

Interactive Mapping & Screening Tool

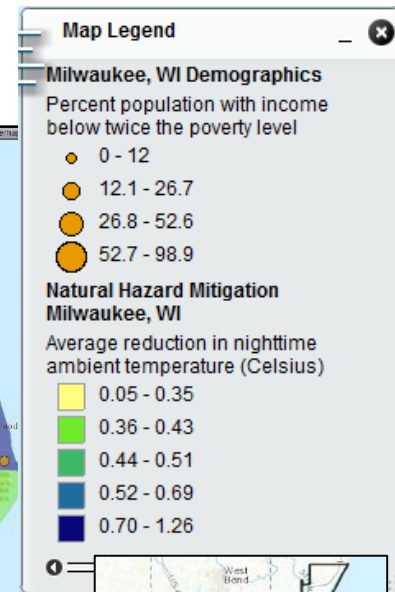
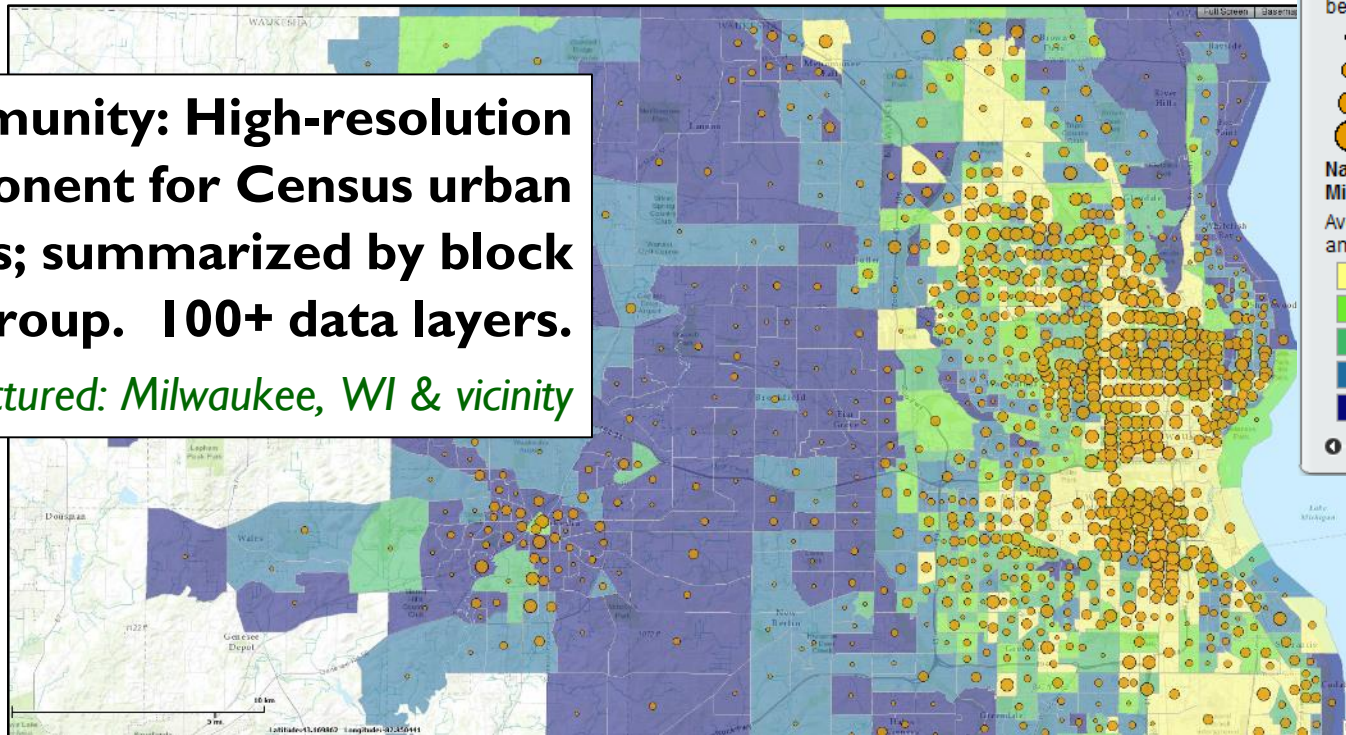
300+ map layers available online

National: Wall-to-wall coverage for contiguous US; summarized by ~90,000 drainage basins (12-digit HUCs). 160+ data layers

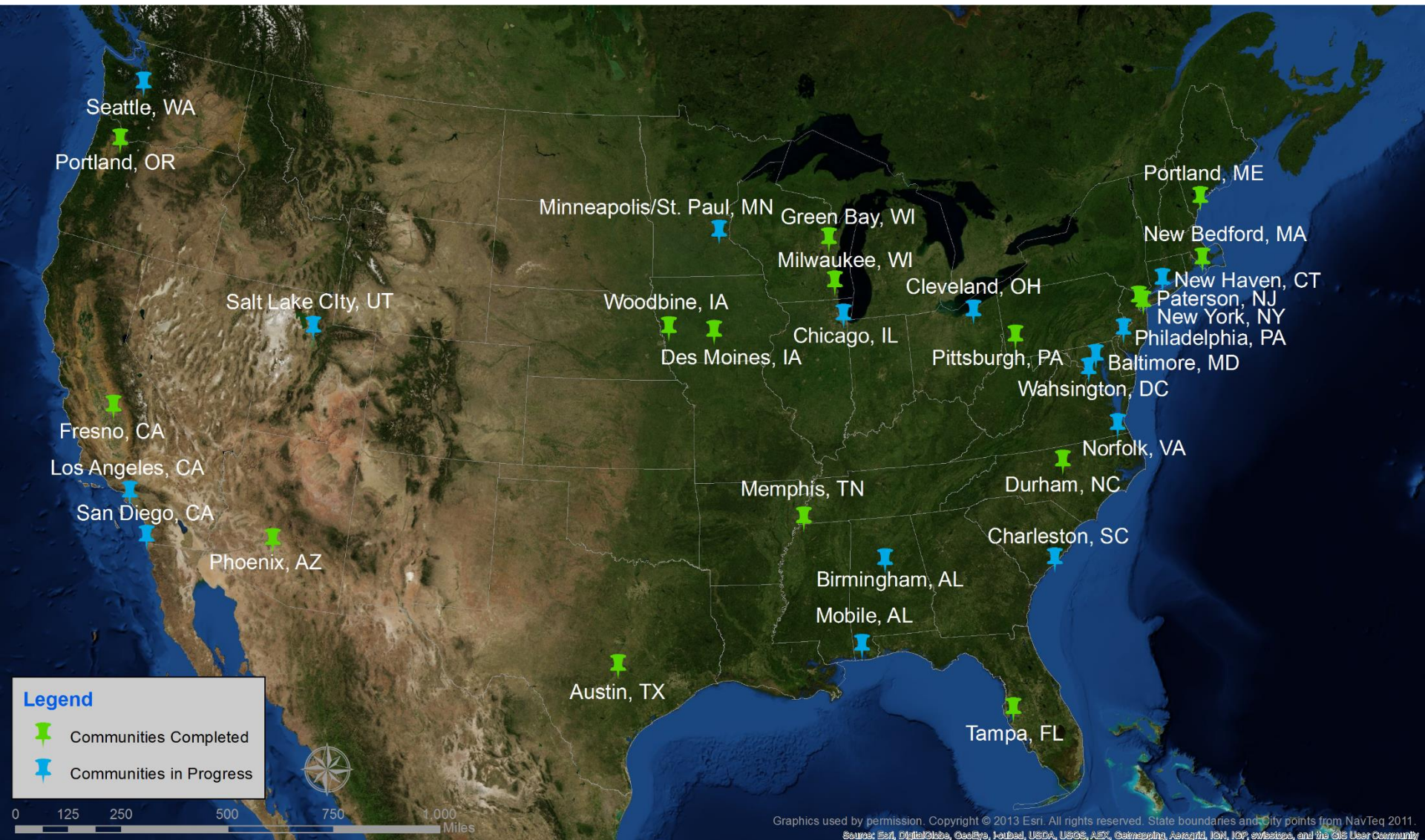


Community: High-resolution component for Census urban areas; summarized by block group. 100+ data layers.

Pictured: Milwaukee, WI & vicinity



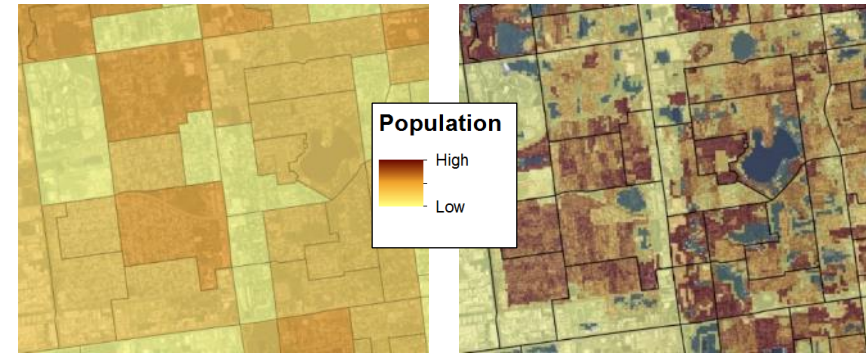
Comparable Block-Group & Finer-Scale Data for Urban & Suburban Areas across the U.S.



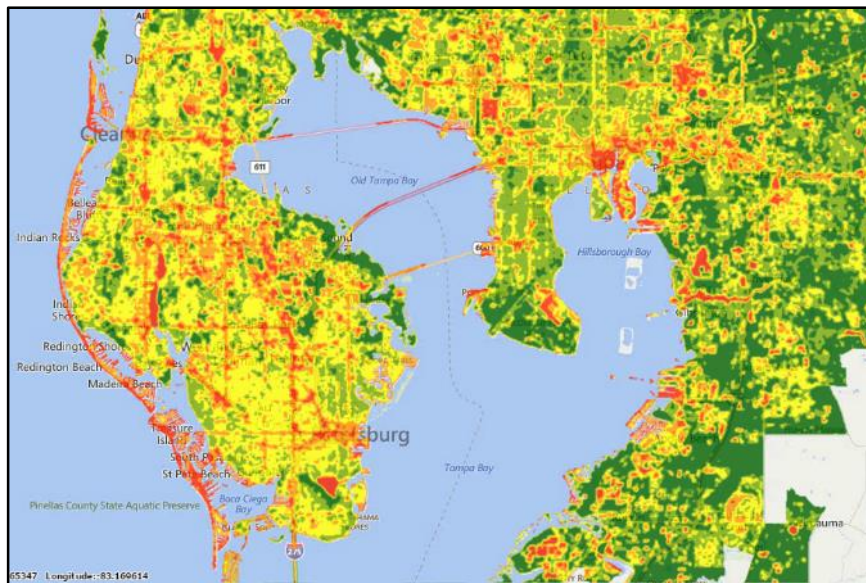
Spatially-explicit maps also available



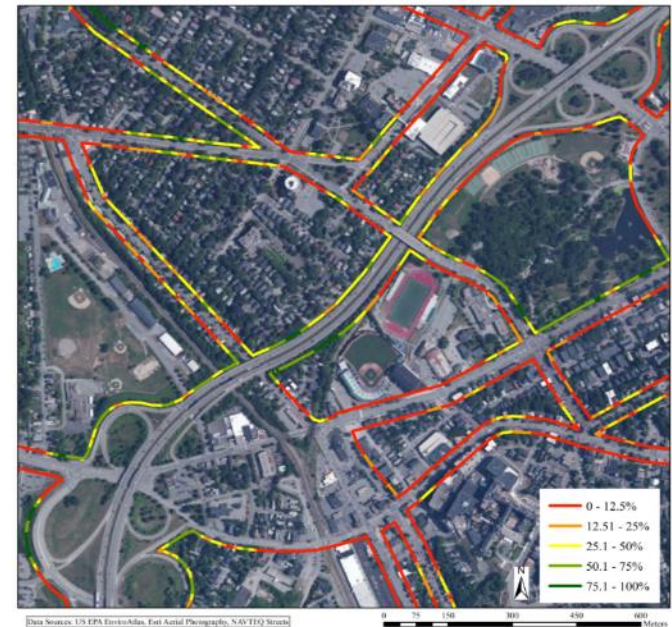
**One-meter
landcover
data**



**Downscaled (30-meter) U.S. Census
population grid**

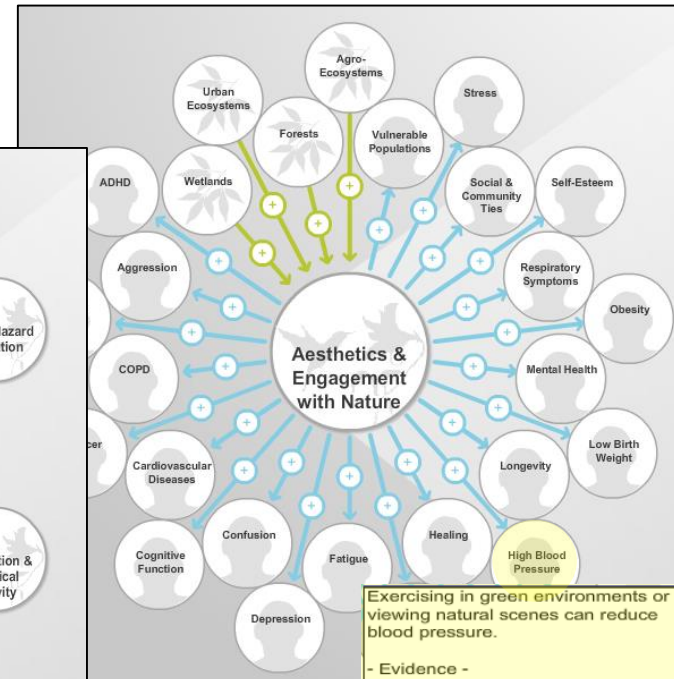
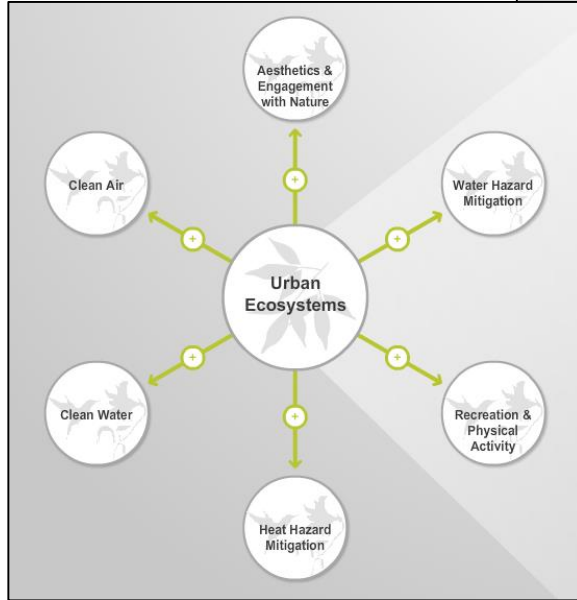
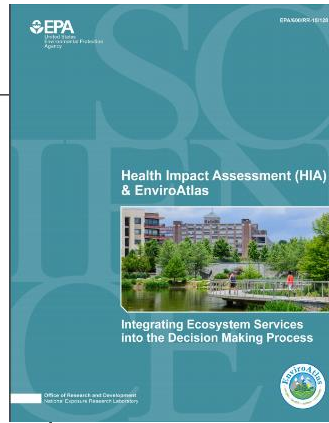
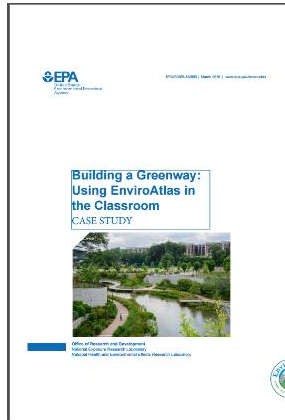


Green-to-impervious "heat" maps

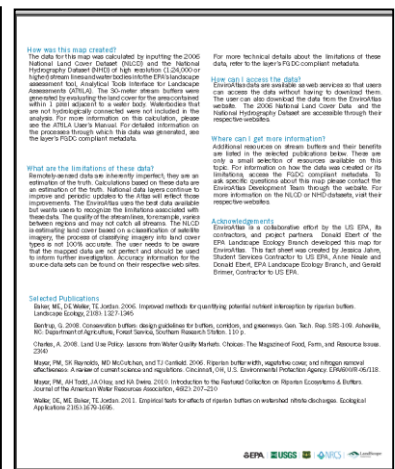


**Precise maps of tree cover
along local roads & streams**

Also: Analysis Tools, Guides & Data Documentation



- Mapping and analysis tools
- User added data
- Downloadable GIS toolboxes
- Eco-Health Relationship Browser
- Jobs, transportation, built environment maps
- Use cases & guides for classroom and HIAs
- Interpretive fact sheets for every data layer



Implications for Urban Pop. Health

Unrealized Assets = Unintended Consequences

Approach

Demonstrate multiple benefits of environmental infrastructure:

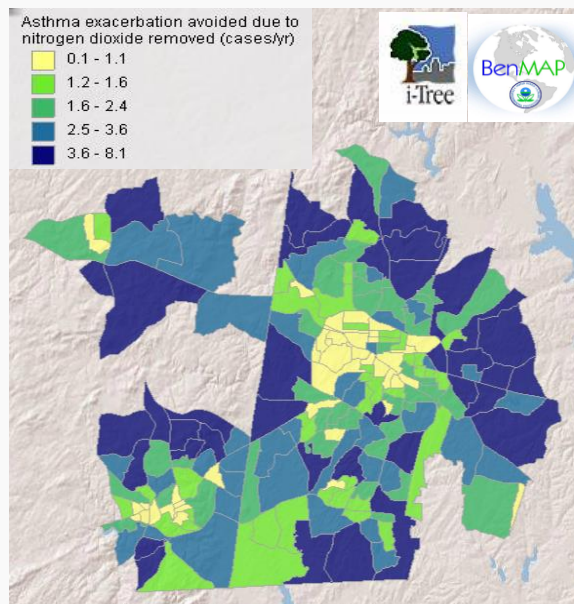
- Clean air
- Clean & plentiful water
- Natural hazard mitigation
- Climate stabilization
- Recreation, culture & aesthetics
- Food, fiber & materials
- Biodiversity conservation

... and how they relate to human health & well-being:

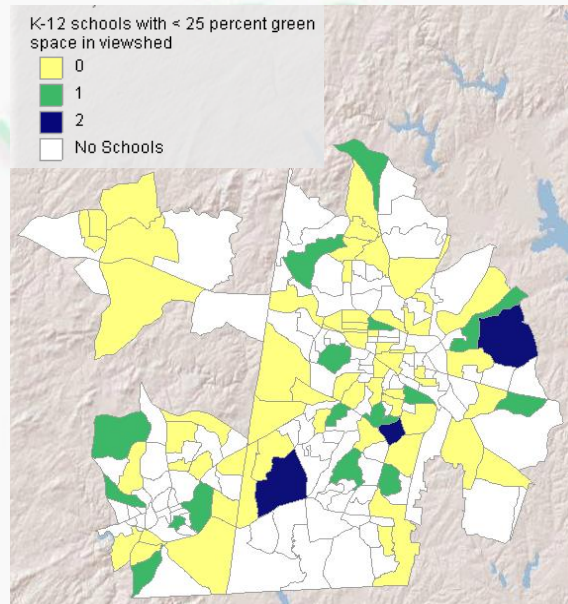
- *Air and water pollutants removed by neighborhood tree cover*
- *Homes and schools near busy roadways*
- *Extreme heat events*
- *Opportunities for physical exercise, social engagement, outdoor experience, and play*
- *Distributions of vulnerable populations*

Community Information to Assist Decision-Making

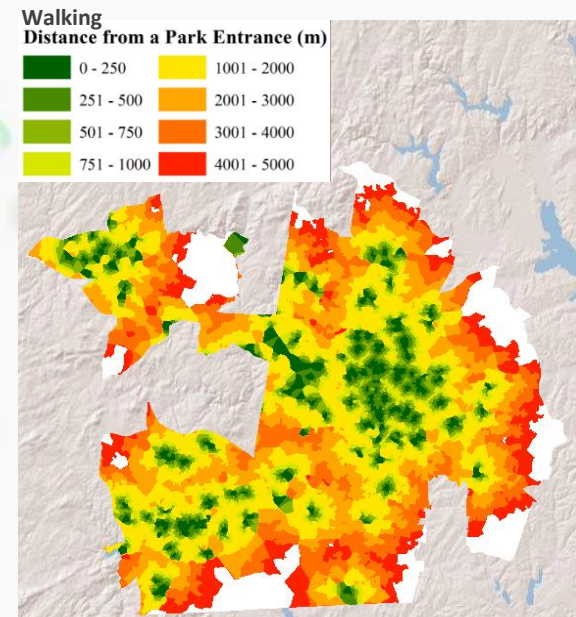
e.g., health interventions, public infrastructure, social equity



Estimated reductions in adverse respiratory health events due to ambient air filtration by trees



Potential to improve school performance through cognitive restoration & stress reduction



Opportunities for physical activity, engagement with nature, & social interaction

Pictured: Greater Durham, NC



NYC Parks

City of New York Parks & Recreation Forestry, Horticulture & Natural Resources

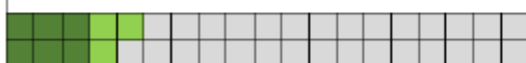
Jackson Heights, Queens – 1101 acres



For every acre in Jackson Heights, there are **98 residents**
1 box = 5 people, full rectangle = 1 acre



Jackson Heights is 17% **tree canopy** and 24% **green space**

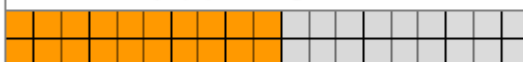


Summer temp reduction	0.70 °F
Runoff avoided (per acre)	1395 gallons
Respiratory health savings (per 10,000 residents)	\$1421
Schools with adequate green space (% of total)	50%
Green streets (% of total acreage)	1.4%
Community gardens	0

Flatbush, Brooklyn – 1039 acres



For every acre in Flatbush, there are **102 residents**
1 box = 5 people, full rectangle = 1 acre



Flatbush is 23% **tree canopy** and 28% **green space**



Summer temp reduction	0.82 °F
Runoff avoided (per acre)	1623 gallons
Respiratory health savings (per 10,000 residents)	\$3305
Schools with adequate green space (% of total)	33%
Green streets (% of total acreage)	1.2%
Community gardens	1

Lower East Side, Manhattan – 536 acres



For every acre in Lower East Side, there are **136 residents**
1 box = 5 people, full rectangle = 1 acre

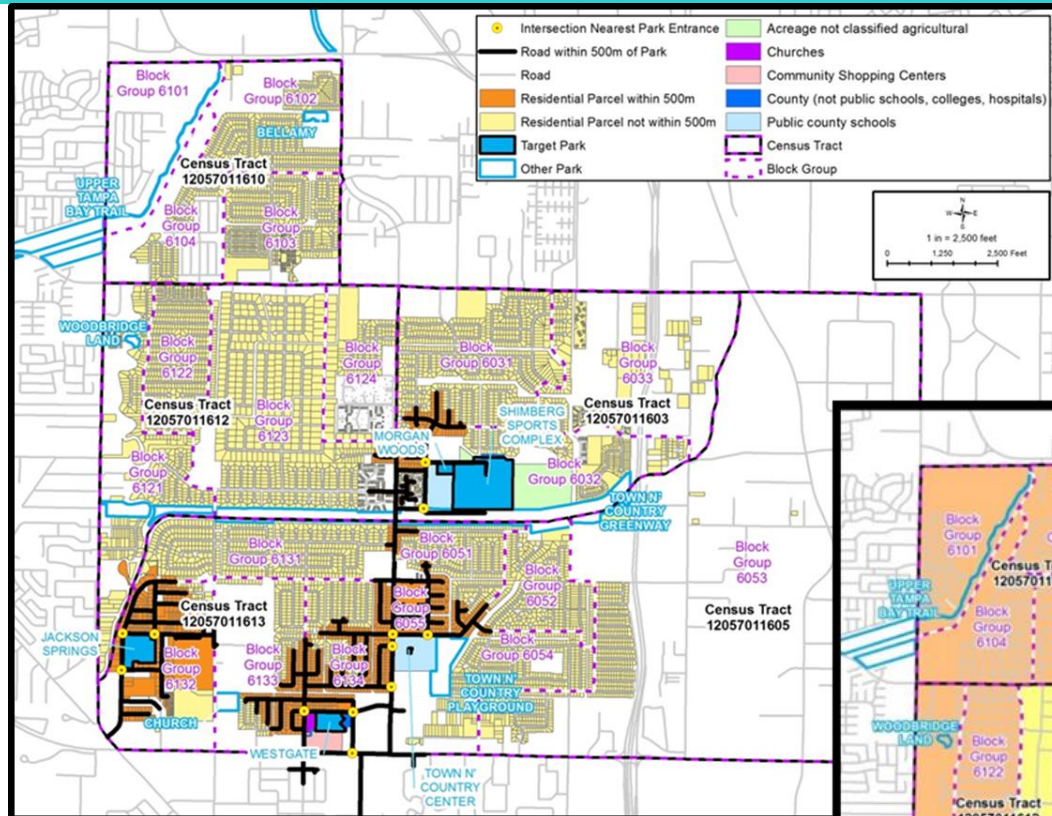


Lower East Side is 27% **tree canopy** and 34% **green space**

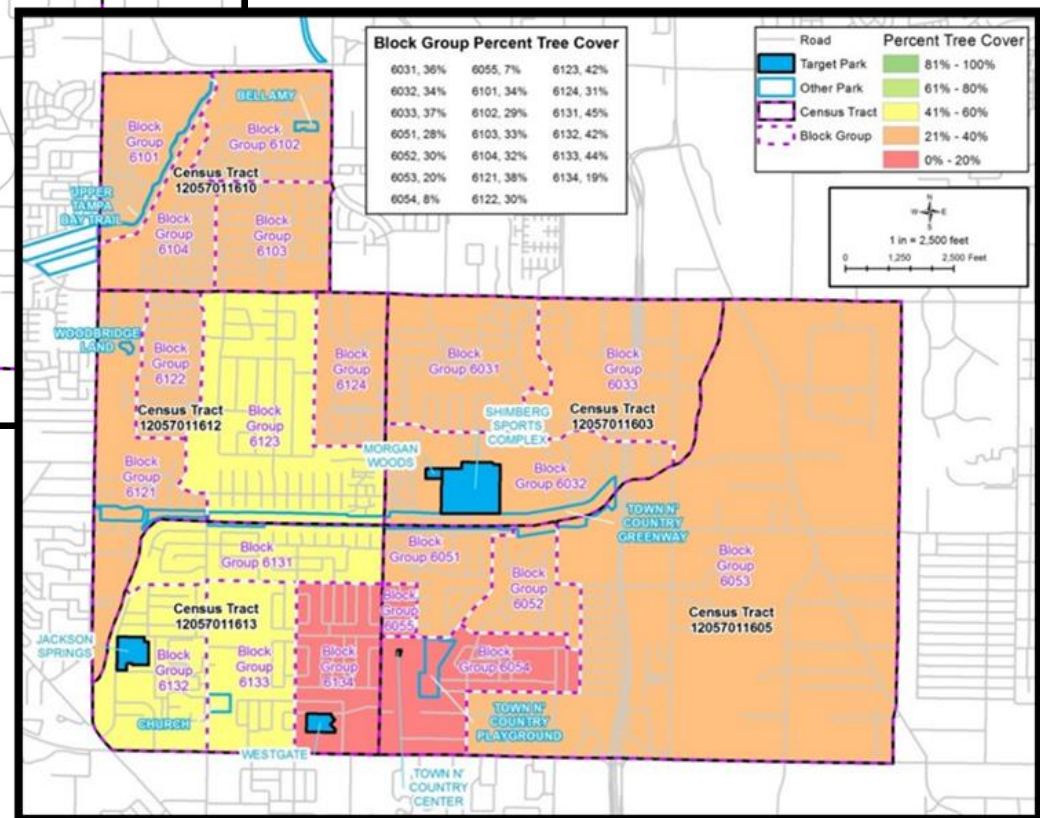


Summer temp reduction	1.01 °F
Runoff avoided (per acre)	1558 gallons
Respiratory health savings (per 10,000 residents)	\$4071
Schools with adequate green space (% of total)	79%
Green streets (% of total acreage)	4.9%
Community gardens	29

HIA: Should the County Permit Local Businesses/Orgs. to Offer Exercise Classes in Public Parks?



"Of the 28,086 estimated population for the target area, approximately 19.1% of people live within 500 meters walking distance from a target park entrance."



Thank you!



HARVARD T.H. CHAN
SCHOOL OF PUBLIC HEALTH